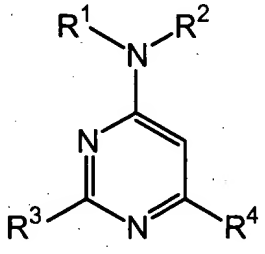
## AMENDMENTS TO THE CLAIMS

Please amend claims 1, 6, 32, 35, and 36 as indicated below. Please also add new claim 37. Deletions appear in ~~strikethrough font~~, and additions are underlined. The listing of claims below will replace all prior versions and listings of claims in the application.

**Complete listing of claims**

1. (Currently amended) A compound of the formula I,



I

in which

$R^1$ is $(C_1\text{-}C_8)$-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, $(C_1\text{-}C_4)$-alkoxy, $(C_1\text{-}C_4)$-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl; $(C_3\text{-}C_9)$-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from $(C_1\text{-}C_4)$-alkyl, hydroxyl and amino; or a radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from $(C_1\text{-}C_4)$-alkyl and aryl-$(C_1\text{-}C_4)$-alkyl-; and

$R^2$ is hydrogen, $(C_1$-$C_8)$-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, $(C_1$-$C_4)$-alkoxy, $(C_1$-$C_4)$-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl; $(C_3$-$C_9)$-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl, hydroxyl and amino; or the radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl and aryl-$(C_1$-$C_4)$-alkyl-; or

$R^1R^2N$ is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^1$ and $R^2$, a further hetero ring member chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl, hydroxyl, $(C_1$-$C_4)$-alkoxy, $R^8R^9N$, hydroxycarbonyl, $(C_1$-$C_4)$-alkoxycarbonyl and $R^8R^9N$-CO-;

$R^3$ is phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1$-$C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1$-$C_4)$-alkyl, -O-$(C_2$-$C_4)$-alkyl-O-$(C_1$-$C_4)$-alkyl, $(C_1$-$C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1$-$C_4)$-alkyl, N($(C_1$-$C_4)$-alkyl$)_2$, -NH-CHO, -NH-CO-$(C_1$-$C_4)$-alkyl, -CN, -CO-$NH_2$, -CO-NH-$(C_1$-$C_4)$-alkyl, -CO-N($(C_1$-$C_4)$-alkyl$)_{-2}$, -CO-OH, -CO-O-$(C_1$-$C_4)$-alkyl, -CHO and –CO-$(C_1$-$C_4)$-alkyl;

$R^4$ is $(C_2$-$C_5)$-alkyl, trifluoromethyl or phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1$-$C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1$-$C_4)$-alkyl, -O-$(C_2$-$C_4)$-alkyl-O-$(C_1$-$C_4)$-alkyl, $(C_1$-$C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1$-$C_4)$-alkyl, N($(C_1$-$C_4)$-alkyl$)_2$, -NH-CHO, -NH-CO-$(C_1$-$C_4)$-alkyl, -CN, -CO-$NH_2$, -CO-NH-$(C_1$-$C_4)$-alkyl, -CO-

$N((C_1-C_4)\text{-alkyl})_2$, -CO-OH, -CO-O-$(C_1-C_4)$- alkyl, -CHO and –CO-$(C_1-C_4)$-alkyl;

$R^5$ and $R^6$ are identical or different radicals chosen from hydrogen and $(C_1-C_4)$-alkyl; or the group $R^5R^6N$ is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated or unsaturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^5$ and $R^6$, a further hetero ring member chosen from an oxygen atom, a group $S(O)_m$ and a nitrogen atom and that can carry on ring carbon atoms one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl and amino and that can carry on a ring nitrogen atom a radical $R^7$;

$R^7$ is hydrogen, $(C_1-C_4)$-alkyl, aryl-$(C_1-C_4)$-alkyl-, hydroxy-$(C_1-C_4)$-alkyl, hydroxycarbonyl-$(C_1-C_4)$-alkyl-, $((C_1-C_4)\text{-alkoxycarbonyl})$-$(C_1-C_4)$-alkyl, $R^8R^9N$-CO-$(C_1-C_4)$-alkyl-, $R^{10}$-$SO_2$- or aryl; where $R^7$, if this group is present on a piperazino radical representing $R^1R^2N$, cannot be carbocyclic aryl or carbocyclic aryl-$(C^1-C^4)$-alkyl;

$R^8$ and $R^9$ are identical or different radicals chosen from hydrogen and $(C_1-C_4)$-alkyl;

$R^{10}$ is $(C_1-C_4)$-alkyl, aryl or $R^8R^9N$;

aryl is phenyl, naphthyl or heteroaryl, all of which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1-C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1-C_4)$-alkyl, O-$(C_2-C_4)$-alkyl-O-$(C_1-C_4)$-alkyl, $(C_1-C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1-C_4)$-alkyl, $-N((C_1-C_4)\text{-alkyl})_2$, -NH-CHO, -NH-CO-$(C_1-C_4)$-alkyl, -CN, $CO\text{-}NH_2$, -CO-NH-$(C_1-C_4)$-alkyl, -CO-$N((C_1-C_4)\text{-alkyl})_2$, -CO-OH, -CO-O-$(C_1-C_4)$-alkyl, -CHO and –CO-$(C_1-C_4)$-alkyl;

heteroaryl is the radical of a monocyclic 5-membered or 6-membered aromatic heterocycle or of a bicyclic 8-membered to 10-membered aromatic heterocycle, each of which with one or two identical or different ring heteroatoms chosen from N, O and S;

m is 0, 1 or 2;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I;

compounds of the formula I being excluded in which, simultaneously, $R^4$ is ethyl, tert-butyl, ~~or~~ trifluoromethyl, or unsubstituted phenyl; $R^3$ is phenyl, which can be substituted by one or two identical or different substituents chosen from halogen, OH, -O-$R^{11}$ and $CF_3$, $R^1R^2N$ is $R^{11}$ -NH-, $(R^{11})_2N$- or $R^{12}R^{13}N$-$(CH_2)_p$-NH-; p is 2 or 3; $R^{11}$ is saturated unsubstituted ($C_1$-$C_4$)-alkyl; and $R^{12}$ and $R^{13}$ are identical or different radicals chosen from hydrogen and $R^{11}$ or the group $R^{12}R^{13}N$ is a radical, bonded via a ring nitrogen atom, of a 5-membered or 6-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^{12}$ and $R^{13}$, a further hetero ring member chosen from an oxygen atom, a sulfur atom and a nitrogen atom and that can be substituted by an aryl radical or by an aryl-($C_1$-$C_4$)-alkyl radical, wherein the aryl group can be substituted by one or two identical or different substituents chosen from halogen, OH, -O-$R^{11}$, and $CF_3$.

2. (Previously presented) A compound of claim 1, in which

$R^1$ is ($C_1$-$C_8$)-alkyl, which can be substituted by one or more identical or different substituents, chosen from, hydroxyl, ($C_1$-$C_4$)-alkoxy, ($C_1$-$C_4$)-alkyl-$S(O)_m$-,

$R^5R^6N$ and aryl; or is $(C_3-C_9)$-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl and amino; and

$R^2$ is hydrogen, $(C_1-C_8)$-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, $(C_1-C_4)$-alkoxy, $(C_1-C_4)$-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl; or is $(C_3-C_9)$-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl and amino; or

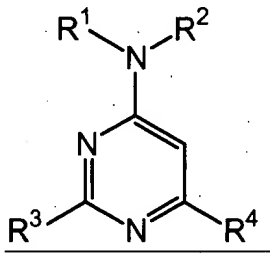
$R^1R^2N$ is a radical, bonded via a ring nitrogen atom of a 5-membered, 6-membered or 7-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^1$ and $R^2$, a further hetero ring member chosen from an oxygen atom, a group $S(O)_m$ and a nitrogen atom carrying a radical $R^7$ and that can be substituted by one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl, $(C_1-C_4)$-alkoxy, $R^8R^9N$, hydroxycarbonyl, $(C_1-C_4)$-alkoxycarbonyl and $R^8R^9N$-CO.

3. (Previously presented) A compound of claim 1, in which $R^1$ is $(C_1-C_4)$-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, $(C_1-C_4)$-alkoxy, $(C_1-C_4)$-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl, or $(C_3-C_9)$-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl and amino, and $R^2$ is hydrogen; or $R^1$ and $R^2$ are identical or different $(C_1-C_4)$-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, $(C_1-C_4)$-alkoxy, $(C_1-C_4)$-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl.

4. (Previously presented) A compound of claim 1, in which $R^1$ is $(C_3-C_9)$-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl and amino, and $R^2$ is hydrogen.

5. (Previously presented) A compound of claim 1, in which $R^1R^2N$- is an unsubstituted or substituted radical chosen from piperidino, morpholino and thiomorpholino (and its S-oxide and S,S-dioxide) and piperazino.

6. (Currently amended) A compound of ~~claim 1~~ the formula I,



I

in which

$R^1$ is $(C_1$-$C_8)$-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, $(C_1$-$C_4)$-alkoxy, $(C_1$-$C_4)$-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl; $(C_3$-$C_9)$-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl, hydroxyl and amino; or a radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl and aryl-$(C_1$-$C_4)$-alkyl-; and

$R^2$ is hydrogen, $(C_1$-$C_8)$-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, $(C_1$-$C_4)$-alkoxy, $(C_1$-$C_4)$-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl; $(C_3$-$C_9)$-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl, hydroxyl and amino; or the radical of a 5-membered to 7-membered

saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl and aryl-$(C_1$-$C_4)$-alkyl-; or

$R^1R^2N$ is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^1$ and $R^2$, a further hetero ring member chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl, hydroxyl, $(C_1$-$C_4)$-alkoxy, $R^8R^9N$, hydroxycarbonyl, $(C_1$-$C_4)$-alkoxycarbonyl and $R^8R^9N$-CO-;

~~in which $R^3$ is substituted phenyl~~

$R^3$ is phenyl, which is substituted by one or more identical or different substituents chosen from halogen, $(C_1$-$C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1$-$C_4)$-alkyl, -O-$(C_2$-$C_4)$-alkyl-O-$(C_1$-$C_4)$-alkyl, $(C_1$-$C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1$-$C_4)$-alkyl, N($(C_1$-$C_4)$-alkyl$)_2$, -NH-CHO, -NH-CO-$(C_1$-$C_4)$-alkyl, -CN, -CO-$NH_2$, -CO-NH-$(C_1$-$C_4)$-alkyl, -CO-N($(C_1$-$C_4)$-alkyl$)_2$, -CO-OH, -CO-O-$(C_1$-$C_4)$-alkyl, -CHO and –CO-$(C_1$-$C_4)$-alkyl;

$R^4$ is $(C_2$-$C_5)$-alkyl, trifluoromethyl or phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1$-$C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1$-$C_4)$-alkyl, -O-$(C_2$-$C_4)$-alkyl-O-$(C_1$-$C_4)$-alkyl, $(C_1$-$C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1$-$C_4)$-alkyl, N($(C_1$-$C_4)$-alkyl$)_2$, -NH-CHO, -NH-CO-$(C_1$-$C_4)$-alkyl, -CN, -CO-$NH_2$, -CO-NH-$(C_1$-$C_4)$-alkyl, -CO-N($(C_1$-$C_4)$-alkyl$)_2$, -CO-OH, -CO-O-$(C_1$-$C_4)$- alkyl, -CHO and –CO-$(C_1$-$C_4)$-alkyl;

$R^5$ and $R^6$ are identical or different radicals chosen from hydrogen and $(C_1$-$C_4)$-alkyl; or the group $R^5R^6N$ is a radical, bonded via a ring nitrogen atom, of

a 5-membered to 7-membered saturated or unsaturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^5$ and $R^6$, a further hetero ring member chosen from an oxygen atom, a group $S(O)_m$ and a nitrogen atom and that can carry on ring carbon atoms one or more identical or different substituents chosen from $(C_1$-$C_4)$-alkyl, hydroxyl and amino and that can carry on a ring nitrogen atom a radical $R^7$;

$R^7$ is hydrogen, $(C_1$-$C_4)$-alkyl, aryl-$(C_1$-$C_4)$-alkyl-, hydroxy-$(C_1$-$C_4)$-alkyl, hydroxycarbonyl-$(C_1$-$C_4)$-alkyl-, $((C_1$-$C_4)$-alkoxycarbonyl)-$(C_1$-$C_4)$-alkyl, $R^8R^9N$-CO-$(C_1$-$C_4)$-alkyl-, $R^{10}$-$SO_2$- or aryl; where $R^7$, if this group is present on a piperazino radical representing $R^1R^2N$, cannot be carbocyclic aryl or carbocyclic aryl-$(C^1$-$C^4)$-alkyl;

$R^8$ and $R^9$ are identical or different radicals chosen from hydrogen and $(C_1$-$C_4)$-alkyl;

$R^{10}$ is $(C_1$-$C_4)$-alkyl, aryl or $R^8R^9N$;

aryl is phenyl, naphthyl or heteroaryl, all of which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1$-$C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1$-$C_4)$-alkyl, O-$(C_2$-$C_4)$-alkyl-O-$(C_1$-$C_4)$-alkyl, $(C_1$-$C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1$-$C_4)$-alkyl, -N$((C_1$-$C_4)$-alkyl$)_2$, -NH-CHO, -NH-CO-$(C_1$-$C_4)$-alkyl, -CN, CO-$NH_2$, -CO-NH-$(C_1$-$C_4)$-alkyl, -CO-N$((C_1$-$C_4)$-alkyl$)_2$, -CO-OH, -CO-O-$(C_1$-$C_4)$-alkyl, -CHO and –CO-$(C_1$-$C_4)$-alkyl;

heteroaryl is the radical of a monocyclic 5-membered or 6-membered aromatic heterocycle or of a bicyclic 8-membered to 10-membered aromatic heterocycle, each of which with one or two identical or different ring heteroatoms chosen from N, O and S;

m is 0, 1 or 2;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

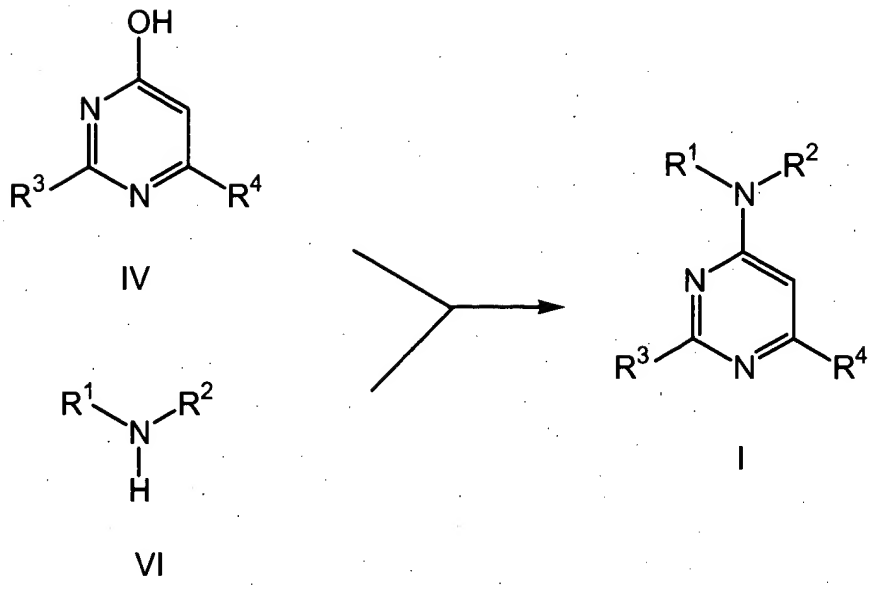
or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I;

compounds of the formula I being excluded in which, simultaneously, $R^4$ is ethyl, tert-butyl, or trifluoromethyl; $R^3$ is phenyl, which is substituted by one or two identical or different substituents chosen from halogen, OH, -O-$R^{11}$ and $CF_3$, $R^1R^2N$ is $R^{11}$-NH-, $(R^{11})_2N$- or $R^{12}R^{13}N$-$(CH_2)_p$-NH-; p is 2 or 3; $R^{11}$ is saturated unsubstituted ($C_1$-$C_4$)-alkyl; and $R^{12}$ and $R^{13}$ are identical or different radicals chosen from hydrogen and $R^{11}$ or the group $R^{12}R^{13}N$ is a radical, bonded via a ring nitrogen atom, of a 5-membered or 6-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^{12}$ and $R^{13}$, a further hetero ring member chosen from an oxygen atom, a sulfur atom and a nitrogen atom and that can be substituted by an aryl radical or by an aryl-($C_1$-$C_4$)-alkyl radical, wherein the aryl group can be substituted by one or two identical or different substituents chosen from halogen, OH, -O-$R^{11}$, and $CF_3$.

7. (Previously presented) A compound of claim 1, in which $R^4$ is ($C_3$-$C_4$)-alkyl.

8. (Previously presented) A process for the preparation of at least one compound of claim 1, which comprises activating a 4-hydroxypyrimidine of the formula IV and then reacting it with an amine of a formula VI to produce a compound of formula I,



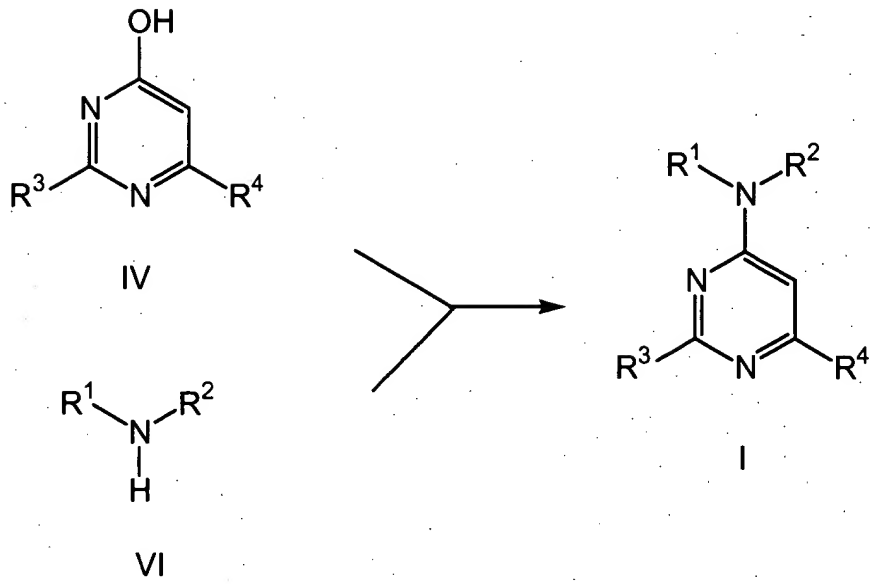

and optionally converting a compound of formula I into a pharmaceutically acceptable salt.

Claims 9-12 (Cancelled)

13. (Previously presented) A compound of claim 5, in which $R^3$ is substituted phenyl.

14. (Previously presented) A compound of claim 5, in which $R^4$ is $(C_3\text{-}C_4)$-alkyl.

15. (Previously presented) A process for the preparation of at least one compound of claim 5, which comprises activating a 4-hydroxypyrimidine of the formula IV and then reacting it with an amine of a formula VI;




and optionally converting the resulting product into a pharmaceutically acceptable salt.

Claims 16-19 (Cancelled)

20. (Previously presented) A pharmaceutical composition, comprising one or more compounds of claim 1 and a pharmaceutically acceptable carrier.

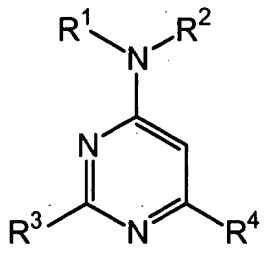
21. (Previously presented) A pharmaceutical composition, comprising one or more compounds of claim 5 and a pharmaceutically acceptable carrier.

Claims 22-23 (Cancelled)

24. (Previously presented) A method of treating angina pectoris, comprising administering to a patient in need thereof an effective amount of at least one compound of claim 1.

25. (Previously presented) A method of treating angina pectoris, comprising administering to a patient in need thereof an effective amount of at least one compound of claim 5.

26. (Previously presented) A method of treating angina pectoris, comprising administering to a patient in need thereof an effective amount of at least one compound of formula I,



I

in which

$R^1$ is ($C_1$-$C_8$)-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, ($C_1$-$C_4$)-alkoxy, ($C_1$-$C_4$)-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl; ($C_3$-$C_9$)-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from ($C_1$-$C_4$)-alkyl, hydroxyl and amino; or a radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from ($C_1$-$C_4$)-alkyl and aryl-($C_1$-$C_4$)-alkyl-; and

$R^2$ is hydrogen, ($C_1$-$C_8$)-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, ($C_1$-$C_4$)-alkoxy, ($C_1$-$C_4$)-alkyl-$S(O)_m$-, $R^5R^6N$ and aryl; ($C_3$-$C_9$)-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from ($C_1$-$C_4$)-alkyl, hydroxyl and amino; or the radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from ($C_1$-$C_4$)-alkyl and aryl-($C_1$-$C_4$)-alkyl-; or

$R^1R^2N$ is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^1$ and $R^2$, a further hetero ring member chosen from O, $NR^7$ and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl, $(C_1-C_4)$-alkoxy, $R^8R^9N$, hydroxycarbonyl, $(C_1-C_4)$-alkoxycarbonyl and $R^8R^9N$-CO-;

$R^3$ is phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1-C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1-C_4)$-alkyl, -O-$(C_2-C_4)$-alkyl-O-$(C_1-C_4)$-alkyl, $(C_1-C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1-C_4)$-alkyl, N($(C_1-C_4)$-alkyl)$_2$, -NH-CHO, -NH-CO-$(C_1-C_4)$-alkyl, -CN, -CO-$NH_2$, -CO-NH-$(C_1-C_4)$-alkyl, -CO-N($(C_1-C_4)$-alkyl)$_2$, -CO-OH, -CO-O-$(C_1-C_4)$-alkyl, -CHO and –CO-$(C_1-C_4)$-alkyl;

$R^4$ is $(C_2-C_5)$-alkyl, trifluoromethyl or phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1-C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1-C_4)$-alkyl, -O-$(C_2-C_4)$-alkyl-O-$(C_1-C_4)$-alkyl, $(C_1-C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1-C_4)$-alkyl, N($(C_1-C_4)$-alkyl)$_2$, -NH-CHO, -NH-CO-$(C_1-C_4)$-alkyl, -CN, -CO-$NH_2$, -CO-NH-$(C_1-C_4)$-alkyl, -CO-N($(C_1-C_4)$-alkyl)$_2$, -CO-OH, -CO-O-$(C_1-C_4)$- alkyl, -CHO and –CO-$(C_1-C_4)$-alkyl;

$R^5$ and $R^6$ are identical or different radicals chosen from hydrogen and $(C_1-C_4)$-alkyl; or the group $R^5R^6N$ is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated or unsaturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals $R^5$ and $R^6$, a further hetero ring member chosen from an oxygen atom, a group $S(O)_m$ and a nitrogen atom and that can carry on ring carbon atoms one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl,

hydroxyl and amino and that can carry on a ring nitrogen atom a radical $R^7$;

$R^7$ is hydrogen, $(C_1-C_4)$-alkyl, aryl-$(C_1-C_4)$-alkyl-, hydroxy-$(C_1-C_4)$-alkyl, hydroxycarbonyl-$(C_1-C_4)$-alkyl-, $((C_1-C_4)$-alkoxycarbonyl)-$(C_1-C_4)$-alkyl, $R^8R^9N$-CO-$(C_1-C_4)$-alkyl-, $R^{10}$-$SO_2$- or aryl; where $R^7$, if this group is present on a piperazino radical representing $R^1R^2N$, cannot be carbocyclic aryl or carbocyclic aryl-$(C^1-C^4)$-alkyl;

$R^8$ and $R^9$ are identical or different radicals chosen from hydrogen and $(C_1-C_4)$-alkyl;

$R^{10}$ is $(C_1-C_4)$-alkyl, aryl or $R^8R^9N$;

aryl is phenyl, naphthyl or heteroaryl, all of which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1-C_4)$-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-$(C_1-C_4)$-alkyl, O-$(C_2-C_4)$-alkyl-O-$(C_1-C_4)$-alkyl, $(C_1-C_2)$-alkylenedioxy, $NH_2$, -NH-$(C_1-C_4)$-alkyl, -N$((C_1-C_4)$-alkyl$)_2$, -NH-CHO, -NH-CO-$(C_1-C_4)$-alkyl, -CN, CO-$NH_2$, -CO-NH-$(C_1-C_4)$-alkyl, -CO-N$((C_1-C_4)$-alkyl$)_2$, -CO-OH, -CO-O-$(C_1-C_4)$-alkyl, -CHO and –CO-$(C_1-C_4)$-alkyl;

heteroaryl is the radical of a monocyclic 5-membered or 6-membered aromatic heterocycle or of a bicyclic 8-membered to 10-membered aromatic heterocycle, each of which with one or two identical or different ring heteroatoms chosen from N, O and S;

m is 0, 1 or 2;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I.

27. (Previously presented) A compound of claim 1, in which $R^1$ is $(C_3-C_7)$-cycloalkyl, which can be substituted by one or two identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl and amino, and $R^2$ is hydrogen.

28. (Previously presented) A compound of claim 1, in which $R^1$ is $(C_3-C_9)$-cycloalkyl, which is substituted by hydroxyl and $R^2$ is hydrogen.

29. (Previously presented) A compound of claim 1, in which $R^1$ is cyclopentyl or cyclohexyl, wherein said cyclopentyl or cyclohexyl can be substituted by one or more identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl and amino, and $R^2$ is hydrogen.

30. (Previously presented) A compound of claim 1, in which $R^1$ is cyclopentyl or cyclohexyl, wherein said cyclopentyl or cyclohexyl is substituted by one or two identical or different substituents chosen from $(C_1-C_4)$-alkyl, hydroxyl and amino, and $R^2$ is hydrogen.

31. (Previously presented) A compound of claim 1, in which $R^1$ is cyclopentyl or cyclohexyl, wherein said cyclopentyl or cyclohexyl is substituted by hydroxyl, and $R^2$ is hydrogen.

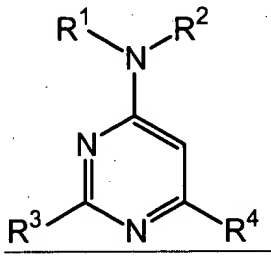
32. (Currently amended) A compound of claim 1, in which $R^1$ is cyclohexyl, which is substituted by hydroxyl, and $R^2$ is hydrogen.

33. (Previously presented) A compound of claim 1, in which $R^1$ is 4-hydroxycyclohexyl and $R^2$ is hydrogen.

34. (Previously presented) A compound of claim 1, in which $R^1$ is $(C_1-C_8)$-alkyl, which can be substituted by one or more identical or different substituents

chosen from hydroxyl, $(C_1-C_4)$-alkoxy, $(C_1-C_4)$-alkyl-$S(O)_m$-, $R^5R^6N$- and aryl, and $R^2$ is hydrogen.

35. (Currently amended) A compound of ~~claim 1,~~ the formula I,



I

in which

$R^1R^2N$ is cyclopentylamino, $R^3$ is 4-methylphenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-methylphenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is cyclopropylamino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 3,5-dichlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is cyclopentylamino, $R^3$ is 4-cyanophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (4-hydroxycyclohexyl)amino, $R^3$ is 4-cyanophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is cyclopentylamino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (trans-4-aminocyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (cis/trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (4-methylcyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (2-isopropyl-5-methylcyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (trans-2-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is cyclopentylamino, $R^3$ is 4-chlorophenyl, and $R^4$ is tert-butyl; or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is tert-butyl; or

$R^1R^2N$ is cyclopentylamino, $R^3$ is 4-chlorophenyl, and $R^4$ is $CF^3$, or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is phenyl; or

$R^1R^2N$ is cyclobutylamino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is cyclononylamino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I.

36. (Currently amended) A compound of claim ~~1~~35, wherein in the formula I

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-methylphenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 3,5-dichlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (4-hydroxycyclohexyl)amino, $R^3$ is 4-cyanophenyl, and $R^4$ is isopropyl: or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

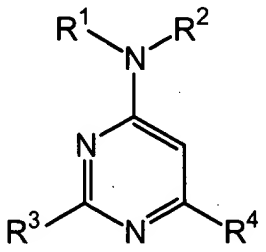
$R^1R^2N$ is (cis/trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (trans-2-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is isopropyl; or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is tert-butyl; or

$R^1R^2N$ is (trans-4-hydroxycyclohexyl)amino, $R^3$ is 4-chlorophenyl, and $R^4$ is phenyl.

37. (New) A compound of the formula I,



I

in which

$R^1$ is ($C_3$-$C_7$)-cycloalkyl, which can be substituted by one or two identical or different substituents chosen from ($C_1$-$C_4$)-alkyl, hydroxyl and amino;

$R^2$ is hydrogen;

$R^3$ is phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, ($C_1$-$C_4$)-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-($C_1$-$C_4$)-alkyl, -O-($C_2$-$C_4$)-alkyl-O-($C_1$-$C_4$)-alkyl, ($C_1$-$C_2$)-alkylenedioxy, $NH_2$, -NH-($C_1$-$C_4$)-alkyl, N(($C_1$-$C_4$)-alkyl)$_2$, -NH-CHO, -NH-CO-($C_1$-$C_4$)-alkyl, -CN, -CO-$NH_2$, -CO-NH-($C_1$-$C_4$)-alkyl, -CO-N(($C_1$-$C_4$)-alkyl)$_2$, -CO-OH, -CO-O-($C_1$-$C_4$)-alkyl, -CHO and –CO-($C_1$-$C_4$)-alkyl; and

$R^4$ is ($C_2$-$C_5$)-alkyl, trifluoromethyl or phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, ($C_1$-$C_4$)-alkyl, phenyl, $CF_3$, $NO_2$, OH, -O-($C_1$-$C_4$)-alkyl, -O-($C_2$-$C_4$)-alkyl-O-($C_1$-$C_4$)-alkyl, ($C_1$-$C_2$)-alkylenedioxy, $NH_2$, -NH-($C_1$-$C_4$)-alkyl, N(($C_1$-$C_4$)-alkyl)$_2$, -NH-CHO, -NH-CO-($C_1$-$C_4$)-alkyl, -CN, -CO-$NH_2$, -CO-NH-($C_1$-$C_4$)-alkyl, -CO-N(($C_1$-$C_4$)-alkyl)$_2$, -CO-OH, -CO-O-($C_1$-$C_4$)- alkyl, -CHO and –CO-($C_1$-$C_4$)-alkyl;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I.